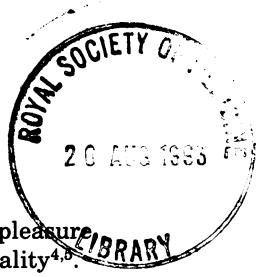
Editorials



Medicine and post-modernity

'The post-modern condition' is a rather pretentious but none the less useful shorthand to describe certain qualities which are distinctive to contemporary Western culture[1,2]. However, the post-modernist trend poses a serious threat to medicine as we know it, portending an erosion of diagnostic and therapeutic objectivity, and dissolution of the profession itself.

We live between two worlds, neither of which seems capable of attracting our undivided support. The world of 'modernity' has evolved from that 'modernist' view of life which had its roots in Francis Bacon, took-off in the seventeenth century with Isaac Newton in science and Rene Descartes in philosophy, and reached its peak in the eighteenth century 'enlightenment'[3]. Modernity is a world in a state of progress towards the goal of enlightenment - objective progress through the application of rationality. A world, that is, where free enquiry pursued by rational persons, with honesty and diligence, would inevitably converge upon the objective Truth. Truth is fixed, permanent and agreed by all competent parties. It is there, waiting to be discovered. And when Truth is known there will be the possibility of a stable, sustainable utopia - the best of all possible worlds. Furthermore, according to enlightenment reasoning, the truth discovered in one area of life will be found to fit neatly with truth in all other areas of life. In the end, by adding together all the little bits of truth, humankind will build a complete 'master vision' of the world and our place in it. Lots of little truths will make up one big Truth. In the paradise of modernity; morality, religion, philosophy, art, science - all of human life and all of nature too - will combine to make an harmonious whole without paradox or contradiction[3].

Modernity has lost its credibility in most areas of life (we no longer expect stability or certainty) but is still recognizable as dominant in the worlds of science and medicine. Science is generally supposed to discover, or reach closer and closer approximations to, Truth. All rational and competent parties (i.e. scientists) are supposed to agree on properly established scientific 'facts'. Medicine is also centred upon an accumulation of objectively established diagnostic and therapeutic interventions, agreed by a group of rational and competent parties (ie doctors). Post-modernity is, by contrast, a condition of aesthetic rather than rational criteria. A world where rationality is deconstructed to reveal its basis in subjectivity - where the rigorous definitions of scientific truth and the carefully validated categories of medical disease are seen as merely the expression of professional power by scientists and doctors. Truth, for post-modernity, is something constructed, not something discovered. For analysts of post-modernity; health, beauty and the other 'feel-good' factors are the reality - a glittering, shifting, two-dimensional reality without root or anchor. Relativism rather than objectivism; preference rather than truth. As a consequence post-modernity values pleasure rather than reality, or even pleasure *as* reality[4,5].

With the advent of post-modernity there has been a break with the legacy of the past. We may be nostalgic for the old certainties, for the belief in progress, and the hope for underlying order in the universe; but the present offers only a plurality of rapidly changing values and irreconcilable concepts. The prevailing mood of post-modernity is *irony*. Belief, for the post-modern citizen, can only be ironic, bracketted, provisional, subject to the possibility of future revision[2]. We have seen so many beliefs and values come and go, are aware of so many diverse and divergent cultures and countries, that it is difficult to sustain the belief that we happen to have succeeded in grasping timeless and objective Truth when so much of the world disagrees with us. Thus the mood of irony; or perhaps its negative face - cynicism[6].

We see post-modernity dominant in the realms of politics, philosophy, morals and art - yet still we see strongly modernist practices and modes of thought in medicine. The result is the anomalous position of medicine in contemporary culture - an island of rationalistic modernity floating in a shifting sea of subjective post-modernity - a castle of objectivity besieged by the forces of relativistic cynicism . . .

In a condition of post-modernity there is no progress; merely fashion - there is no purpose, merely change. Society has become a *conversation* not an argument, a conversation without goal or end-point. Medicine, however, has not abandoned ideas of progress, neither has it abandoned the idea of purpose. Medical progress is seen in the conventional accounts of more effective surgery, powerful antibiotics with minimal side effects, successful prolongation of the life of diabetics, new cures for leukaemia, etc. If the purpose of medicine is to alleviate illness and cure disease, there is also an end point. After that goal has been achieved, the work of medicine is done, and the non-sick can get on with living. Progress towards that goal can be rationally and objectively charted. Medicine is modernity in action.

However, the position of modernist medicine in post-modern culture explains why there is a constant tendency for the boundaries of medicine to break down. Medicine tends to become engulfed by the surrounding aesthetic, feel-good, 'life-style' modes of thought which dissolve medical certainties into mere matters of fashion and preference. The plurality of views and lack of a shared moral framework has made cynicism commonplace[6], and medical 'objectivity' is cynically redescribed in terms of veiled self-interest. On the other hand medicine is inclined to burst its banks and attempt the subjugation of surrounding 'relativistic' territories using such 'objective' weapons as the prestige of science and the professional consensus of doctors.

Given this tension between medicine and its surrounding culture, we can speculate on how medicine would change were it to expand its scope and be engulfed within post-modernity. What might a post-modernist medicine look like?

Post-modern medicine would look different from medicine today, although we can see glimmerings of how it might appear, especially in the USA. Medicine would quietly abandon science as altogether too crude and inflexible to encompass the plurality of human pleasure and preference. Choosing a doctor would become like choosing a pair of shoes. We would expect 'alternative' therapies to be abundant, competitive and aggressively marketed like films and books - promising to enhance the consumer's life-style and sense of worth[7]. Professional ethics and the medical morality would dissolve into the commercial arena - you could select the doctor (or 'healer') with the ethical and spiritual outlook that suited you[8]. However, *caveat emptor* - let the purchaser beware - you would buy 'health' at your own risk; because whether or not the healers promises were fulfilled would not depend upon rational constraints.

Scientific and sceptical evaluation of claims would fly out of the window. As the definition of a doctor and the boundaries of medicine melted away, the consumer would become less and less sure about exactly what they were getting. In post-modern medicine doctors would wholeheartedly enter the market place (where else is there for them to go?) - the world of fashion and design. Standards would become fluid, personal and aesthetic - like the standards of what makes a 'good' car, or an attractive building. Eclecticism would be the operative word[5]. Pick-and-mix medicine. A bit of this, that and the other.

Disease and illness would merge with health and well-being. Sickness is modern; health is post-modern[4]! Negative sickness and positive health would become part of the same equation, so that anything which makes you feel good would be on a par with treatment for illness or disease. Post-modern medicine could then have no boundaries to dictate what should be paid for by a health service or health insurance - the likelihood is that a national health service could not survive post-modern medicine. (The multiplication of preferences would be highly unlikely to converge on a stable consensus; why should it?) Health would be something to be negotiated between the individual consumer and the individual provider, with government standing on the sidelines. Such a vision might appeal to the ultra-radical free-market political right wing - because it gets rid of government and professional 'interference' to allow untrammelled entrepreneurship; and also to the ultra-radical libertarian anarchist left wing - because post-modernity dismantles hierarchy and paves the way for an egalitarian utopia. Post-modern medicine does not, however, appeal to me.

Unless the above description (or something like it) is to be regarded as a desirable state of affairs, then post-modernity must be rejected as the future of medicine. How, then, can medicine survive? What are the limits to post-modernity? Post-modernity is not ubiquitous in culture: irony, aesthetics, fashion and cynicism are not omnipresent. When building a suspension bridge, or an aircraft; a post-modern, ironical attitude to the plans is not appropriate (not, anyway, if we prefer that the bridge does not fall-down and that the aeroplane will stay-up). We would be well advised to pick the most truthful engineering technique, rather than the trendiest or most profitable. Especially, post-modernity is not a factor 'when the chips are down' in matters of life and death. For instance, during a war, when national survival is a priority, fashion and beauty must take a back seat and the population are just not allowed to take a cynical line about the need to fight the enemy. We may be ironical in our own minds, in private, but this must not affect action. Furthermore, market mechanisms and economic efficiency are subordinated to sheer production, whatever the price.

The situation in medicine is rather like the situation in war. So long as medicine is concentrated upon sickness, then the chips are, indeed, down - and we are thus in an area where modernity is preferable to post-modernity. We want to know what we are getting when we are sick, and we want to know that it works. We want the reassurance of good professional ethics, not the cut-and-thrust of the market place. Economic efficiency must not be the primary aim; it should be subordinated to clinical goals. In other words a sick person wants the certainties of modernity. Only when we are feeling well are we inclined to gamble on the glamorous relativities of post-modernity. So long as medicine stays within boundaries where it can assert with confidence that what it does is worth doing, where medicine deals with actual sickness rather than potential health, then medicine's place in a culture of post-modernity seems (relatively!) secure.

The key to medical modernity, as it is to medical morality, is professional practice[9]. We should, for the benefit of society at large, allow medicine to retain its professional structure. This of course implies privileges as well as duties - and the major privilege is protection from market forces (a monopoly on prescribing, a monopoly on NHS medical jobs, etc.). Privileges are allowed doctors in return for the requirement that a doctor will put his patient's interests before the desire to make money. On the one hand the professional is insulated from raw market forces, on the other the professional must adhere to standards of ethical behaviour (inculcated during education and enforced during practice[9]). This system of rights and responsibilities is already in-place in British medicine, and reforms should be directed at strengthening it; not at dismantling it in favour of a market-driven free-for-all.

Given the strength of medical professional solidarity and the high level of public support, medical rationality may yet be maintained in the post-modern maelstrom. On the other hand, medicine is under serious threat. The cynical impulse delights in unmasking professional high-mindedness and redescribing it in terms of the cunningly veiled pursuit of self-interest[6]. Medical morality is seen as pure hypocrisy. This is the subtext of innumerable examples of investigative journalism, and seems to be implicit in some of the 1989 National Health Service reforms[10].

However, hypocrisy is the inevitable result of high ideals - the fact that people fail to live up to their ideals does not mean that we would be better off without ideals. Would matters really be improved if the high-minded goals of medicine were dropped, and doctor and patient confronted one another in naked self-interest? Is free market competition, investigative journalism and a proliferation of consumer watchdogs an adequate substitute for responsible professional practice? Almost certainly not. The patient is too vulnerable to exploitation when suffering illness and disease. A sick patient just must be able to trust his doctor: there is no way around it. Expanding competition will, in the end, only benefit the providers of medical services and not the sick, as has happened in the USA.

Cynicism will, if unchecked, destroy aspects of medicine which would not fully be appreciated until after they had gone[10]. It is a frighteningly easy matter to break down the accumulated morality and objective wisdom of medical practice. It would be very slow and painful to rebuild what had been destroyed - several generations would have to suffer the consequences of their ancestors' vandalism.

Our course is clear. Post-modernity has limited applicability. We should reform, fortify and safeguard traditional standards of medical professionalism. Ethical practice and the conditions necessary to establish 'objective' knowledge are both vital. We need to maintain medical 'modernity' as a port and haven in the post-modern storm.

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Surgery: science and craft

Surgery may be defined as the 'art or practice of treating injuries, deformities and other disorders by manual operation or instrumental appliances'[1].

The word 'surgeon' is derived from the Greek χειρουργος (hand worker). The earliest surgical text is in the Edwin Smith Papyrus from the seventeenth century BC which comprises 48 typical 'surgical cases'. In the fifth century BC the Hippocratic corpus contained five treatises of a surgical nature: (1) On wounds in the head; (2) In the surgery; (3) On fractures; (4) On joints; and (5) On instruments of reduction[2]. In the treatise entitled 'In the surgery', the operative theatre is referred to as ιητρειον where the doctor (ιατρος) worked, and χειρουργιην as his operative requirements.

The significant advance in the twentieth century has been due to the interaction between surgical intervention and scientifically based medicine. In England in the Middle Ages surgery was a Craft Guild until 1540. In 1540 surgeons and barbers joined together to form the Company of Barber-Surgeons. Until the end of the seventeenth century the practice of surgery was hardly different from that described by Hippocrates. Medicine, as opposed to surgery, had made major scientific advances during this century based upon the development of the science of physiology as epitomized particularly in William Harvey's 'De motu cordis'. The only scientific advances during this period that might have influenced surgery were in the field of anatomy and these took place mainly in Italy in the sixteenth and seventeenth centuries. Medicine responded to the scientific advances, but surgery remained a craft. The status of surgeons in society, in relation to that of physicians, reflected this. Perhaps the only new operation introduced towards the end of this period was that of 'cutting for stone'. The technical mysteries initially surrounding this procedure would not indicate a particularly scientific approach.

William Cheselden (1688-1752) was perhaps the first English surgeon to popularize the teaching of anatomy and his textbook of anatomy was printed in many editions. He was very active in the movement that led to a Bill being brought before Parliament for splitting the surgeons of London and the barbers of London into two distinct corporations. The Company of Surgeons was formed in 1745 and later became The Royal College of Surgeons of England. The period after 1745 saw the birth of the science of surgery. In England, this was almost exclusively due to the genius of John Hunter (1728-1793). John Hunter is considered to be the 'father of scientific surgery'. He was the first to include basic medical sciences or applied biological sciences in the education of the trainee surgeon; he demonstrated to his students by experiment, how the body adapted to changes in the environment and to changes caused by trauma and disease[3]. The breadth of Hunter's approach is exemplified in the Hunterian Collection housed at The Royal College of Surgeons, much of which he prepared for use in his lectures on 'the principles of surgery'[4]. Hunter divided that part of his museum devoted to the demonstration of normal structures into two main groups. The first included preparations showing the adaptation of, and devices concerned with, the preservation of the individual in everyday life; the second contained preparations to illustrate the continuity of the species. In addition, there were specimens showing a great variety of pathological conditions. Those specimens devoted to structures important for survival of the individual include a section on *organs for locomotion* demonstrating the great variety of adaptations which serve this function. The *organs of motion* are demonstrated by specimens of muscle and bone. The section on the *organs of digestion* demonstrates a great variety of adaptations throughout the alimentary canal. The *nervous system* is illustrated by an evolutionary series leading up to the highly organized brain and spinal chord of mammals and man. There is also a section on *regeneration* illustrating the power of some animals to regenerate organs. The section on the preservation of species is concerned mainly with reproduction.

John Hunter is also considered to be the founder of surgical pathology. The first group of pathology specimens in his museum was chosen to illustrate the principles of general pathology, that is, inflammation, absorption, repair and transplantation. The second group was chosen to illustrate specific disease processes